City of Seattle
Seattle Department of Construction and Inspections
Engineering Services

JON R O'HARE
17479 7TH AVE SW
NORMANDY PARK, WA 98166

Re: Project #6698208-DM-004

Correction Notice #1

Review Type GEO SOILS
Project Address 801 3RD AVE
SEATTLE, WA 98104
Contact Email JON@PERMITCNW.COM
SDCI Reviewer Pao Huang
Reviewer Phone (206) 684-5825
Reviewer Email pao.huang@seattle.gov
Owner D LLC

Date April 08, 2021
Contact Phone (425) 301-9541

Address Seattle Department of Construction and Inspections
700 Fifth Ave
Suite 2000
PO Box 34019
Seattle, WA 98124-4019

Description of Work:
Revision: Install temporary rubble bracing, per plan.

Reference:
March 12, 2021 "Geotechnical Recommendations for Rubble Berm Support of Basement Wall ", by Hart Crowser (File No. 19567-01)

Document Reviewed:
Plan Set uploaded on 3/25/2021 (1.26 MB)

Applicant Instructions

You will not be able to upload corrected plans until all reviews are completed and the project's review status is "Corrections Required".

*** Respond by providing **a written response to each correction AND identify changes to drawings since initial review**. ***

Drawings shall be **legible**, with sheets **oriented correctly**, on an appropriate **sheet size**, with all revisions/changes **clouded or circled**, with **no missing sheets**, and uploaded in a **single PDF file**.

Link for detailed steps: "How to Respond to a Correction Notice". If the 3-step process outlined in this document is not followed, your response could be **rejected**, permit issuance could be **delayed**, and **penalty fees** could be assessed.

Codes Reviewed

This project has been reviewed for conformance with one or more of the following codes: 2015 Seattle Building Code (SBC); 2015 Seattle Residential Code (SRC); 2015 Seattle Existing Building Code (SEBC); 2015 Seattle Energy Code (SEC); Grading Code; Environmentally Critical Areas Regulations (ECA).

This project has been reviewed for conformance with one or more of the following codes: 2018 Seattle Building Code (SBC); 2018 Seattle Residential Code (SRC); 2018 Seattle Existing Building Code (SEBC); 2018 Seattle Energy Code (SEC); Grading Code; Environmentally Critical Areas Regulations (ECA).

Corrections

1. The bench width is 6 feet. Please have geotechnical engineer confirm Kp=4.1 used by the structure engineer is appropriate. Please also elaborate on how the Kp is developed for the slopped ground with a bench as recommended in the Table 1 in the Memo.

Reference Hart Crowser response on page 6. [GK, LCL, 04/30]

2. Please have geotechnical engineer recommend monitoring program for the basement wall deflection during demolishing and the monitoring program should be included in the plans.

Reference Hart Crowser response on page 7. [GK, LCL, 04/30]

3. SMC 22.170.190 A. Provide a signed and stamped letter from the geotechnical engineer that includes review of the plans and provides a minimal risk statement in accordance with Director's Rule 5-2016. The plan review/minimal risk letter must be based upon review of plans with all substantial geotechnical recommendations incorporated.

Signed and stamped letter from Hart Crowser on pages 9-10. [GK, LCL, 04/30]

4. SMC 25.09.080 D and 22.170.080 A.1. Liability insurance, including Products Completed Operations Coverage, is required by the ECA and Grading Codes. Contact Amber Udelhoven of City Risk Management at **amber.udelhoven@seattle.gov** to facilitate submittal of insurance forms from the contractor's insurance agent. Be prepared to provide the names of the excavation and shoring contractors

Amber Udelhoven has been contacted to facilitate submittal of insurance forms, Rhine demolition is currently submitting liability insurance forms for review and approval. [GK, LCL, 04/30]

5. SMC 22.170.130. Nominate a geotechnical engineering firm on the enclosed SDCI Geotechnical Special Inspections Schedule form. This form must be signed by the owner or owner's representative; the form cannot be signed by the contractor nor the geotechnical engineer.

The Inspection Agency must be the same engineer/firm that prepared the geotechnical report. If the owner nominates a different engineer/firm to act as the Geotechnical Special Inspector, the new engineer must review the original geotechnical report and submit a letter indicating a review was performed, along with a statement of agreement with the evaluation and provisions contained in the report. If the new engineer does not agree with aspects of the report, rebuttal evaluations and recommendations must be included in the review letter. The plans must be revised accordingly and submitted to SDCI for review. Please do not fill in special inspection items on the enclosed form.

Requests for changes of Special Inspection Agency that occur during plan review should be submitted with corrected plans. If the request occurs after permit issuance, send the materials to jerry.abson@seattle.gov.

Owner signed SDCI Geotechnical Special Inspections Schedule form on page 11. [GK, LCL, 04/30]

City of Seattle
Seattle Department of Construction and Inspections
Engineering Services

JON R O'HARE
17479 7TH AVE SW
NORMANDY PARK, WA 98166

Re: Project #6698208-DM-004

Correction Notice #1

Review Type STRUCTURAL ENGINEER
Project Address 801 3RD AVE
SEATTLE, WA 98104
Contact Email JON@PERMITCNW.COM
SDCI Reviewer Ben Enfield
Reviewer Phone (206) 615-0774
Reviewer Email Benjamin.Enfield@Seattle.gov
Owner D LLC

Date April 12, 2021
Contact Phone (425) 301-9541

Address Seattle Department of Construction and Inspections
700 Fifth Ave
Suite 2000
PO Box 34019
Seattle, WA 98124-4019

Applicant Instructions

You will not be able to upload corrected plans until all reviews are completed and the project's review status is "Corrections Required".

*** Respond by providing **a written response to each correction AND identify changes to drawings since initial review**. ***

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Link for detailed steps: "How to Respond to a Correction Notice". If the 3-step process outlined in this document is not followed, your response could be **rejected**, permit issuance could be **delayed**, and **penalty fees** could be assessed.

Codes Reviewed

This project has been reviewed for conformance with one or more of the following codes: 2015 Seattle Building Code (SBC); 2015 Seattle Residential Code (SRC); 2015 Seattle Existing Building Code (SEBC); 2015 Seattle Energy Code (SEC); Grading Code; Environmentally Critical Areas Regulations (ECA).

This project has been reviewed for conformance with one or more of the following codes: 2018 Seattle Building Code (SBC); 2018 Seattle Residential Code (SRC); 2018 Seattle Existing Building Code (SEBC); 2018 Seattle Energy Code (SEC); Grading Code; Environmentally Critical Areas Regulations (ECA).

Corrections

1. Opening support

Calcs page 4 -

a. The temporary case assumes support against the Marion St wall. Clarify the load path for this force.

b. And on the other side of the opening, a support is assumed. Clarify what this support is.

Responses on page 12-14. [GK, LCL, 04/30]

2. Geotech comments

Please coordinate the calculations and response with the response to the geotechnical comments.

Seattle Department of Construction and Inspections
700 Fifth Ave, Suite 2000, PO Box 34019, Seattle, WA 98124-4019

Gu, Ray

From: Gu, Ray
Sent: Friday, April 23, 2021 10:33 AM
To: Jon O'Hare
Cc: Bou, William
Subject: 6698208-DM-004 801 3rd Ave

Hi Jon,
The first round SDOT shoring review is conducted and comments provided below:

1. The Geotechnical Engineer shall review the shoring design and indicate whether the relevant recommendations in the Geotechnical Report are implemented and the design is acceptable. Provide a signed and stamped letter from the geotechnical engineer for updated design recommendations and construction considerations, as appropriate
   Signed and stamped letter from Hart Crowser on pages 9-10. [GK, LCL, 04/30]
2. Indicate the depth of court yar deck with reference to 3rd Ave sidewalk and double check the soil later pressure profile in Calcs.
   Reference KPFF responses on pages 15-16. [GK, LCL, 04/30]
3. On page 2 of plan set, modify the note for yellow deck to : Floor slabs at court and on-grade levels and their columns can be demolished only after rubble is in place at both and north and east walls.
   Reference KPFF response on page 15 and revised plan sheet on page 17. [GK, LCL, 04/30]
4. Provide an optical monitoring program for potential ground movement during construction. It should include at least include three optical survey points at 3rd Ave and one at Marion St
   Reference Hart Crowser response on pages 7-8. [GK, LCL, 04/30]
5. It is advised to pour CDF to fill the potential gaps or voids between rubble and subsurface walls.
   Reference Hart Crowser response on page 8. [GK, LCL, 04/30]

Regards,

Ray Gu, PE, SE
Senior Civil Engineer
Street Use Division
City of Seattle Department of Transportation
O: 206.684.5281 | F: 206.684.3130 | ray.gu@seattle.gov

HARTCROWSER

A division of Haley & Aldrich

April 28, 2021

Mark Presleigh
Lease Crutcher Lewis
2200 Western Avenue, Suite 500
Seattle, WA 98121

Re: Addendum #1 - Response to SDCI Correction Notice #1
The Net - Rubble Berm Support of Basement Walls
SDCI Project Number: 6698208-DM-004
19567-01

Mark,

This addendum letter provides recommendations for a monitoring program and provides responses to comments from Seattle Department of Construction and Inspections (SDCI) and Seattle Department of Transportation (SDOT):

1. SDCI Structural Engineer Correction Notice #1, Correction Items #1 and #2.

2. SDOT, Comments #1, #4, and #5.

SDCI Correction Item #1

The bench width is 6 feet. Please have geotechnical engineer confirm Kp=4.1 used by the structural engineer is appropriate. Elaborate on how Kp is developed for the sloped ground with a bench as recommended in Table 1 in the Memo.

The geotechnical engineer is Hart Crowser, a division of Haley & Aldrich (HCHA). We confirm that Kp=4.1 for a 6-foot-wide bench, as used by the structural engineer, is appropriate.

Kp for the bench is developed by multiplying Kp for a level ground condition by the ratio of the area of a full passive wedge and the area of the truncated wedge resulting from the benched geometry. Kp for level ground condition is calculated using the log-spiral method with a soil friction angle of 40 degrees and interface friction angle of 20 degrees. The material used for berm construction is processed angular concrete rubble debris.

Note that, per the structural engineer's calculations, the lateral resistance of the rubble berm is controlled by base sliding of the berm using an interface coefficient of friction of 0.3, not passive earth pressure.

3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
206.324.9530

SDCI Correction Item #2

Please have the geotechnical engineer recommend monitoring program for the basement wall deflection during demolition and the monitoring program should be included in the plans.

HCHA recommends the following monitoring program:

Optical Survey Locations

1. Interior walls – locate points near the top of the wall, spaced about every 15 feet.
2. Curb line – locate points on curb line across from basement area, spaced every 20 feet along the curb.

Optical Survey Monitoring Frequency

1. Interior Walls
    a. Baseline prior to removing adjacent wall diaphragm/existing support.
    b. Once per week during demolition.
    c. Once demolition is complete and bracing/shoring/rubble mounds are in place, and provided that survey data indicates little or no additional movement, reduce survey frequency to every other week.
2. Curb line
    a. Baseline prior to removing adjacent wall diaphragm/existing support.
    b. Start regular monitoring if interior wall data indicates movement of 0.5 inch or if there is a sudden change in wall movement.
3. Duration
    a. Optical survey should continue for a minimum of one month after demolition is complete and bracing/shoring/rubble mounds are in place.
    b. After one month, and provided that survey data indicates little or no additional movement, the geotechnical engineer, in cooperation with the shoring engineer, may recommend stopping the optical survey monitoring.

Reporting

1. Survey data to be provided to HCHA on a weekly basis for review.

SDOT Comment #1

The Geotechnical Engineer shall review the shoring design and indicate whether the relevant recommendations in the Geotechnical Report are implemented and the design is acceptable. Provide a signed and stamped letter from the geotechnical engineer for updated design recommendations and construction considerations, as appropriate.

HCHA (geotechnical engineer) has provided a plan review and minimum risk statement letter to SDCI.

SDOT Comment #4

Provide an optical monitoring program for potential ground movement during construction. It should include at least include three optical survey points at 3rd Ave and one at Marion St.

See response to SDCI Correction Item #2. The recommended monitoring exceeds the minimum recommended by SDOT Comment #4.

SDOT Comment #5

It is advised to pour CDF to fill the potential gaps or voids between rubble and subsurface walls.

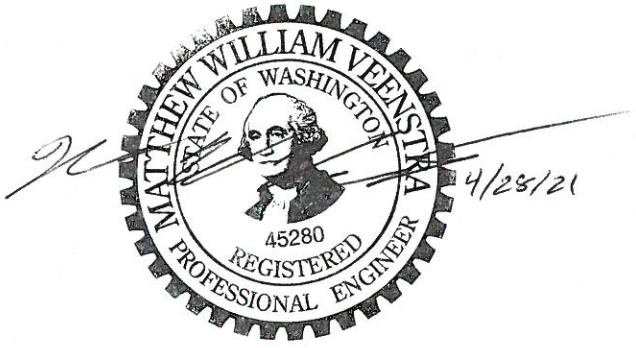
Constructability is unlikely because controlled density fill (CDF) would either flow laterally through the voids, spilling out of the berm or, if voids are small, CDF would not penetrate the berm fill and would just flow over the surface of the berm. The rubble has been observed to be processed and reasonably well-graded so that the load is not resisted by only sparse points.

Closing

This letter is an addendum to our previously submitted memorandum dated March 12, 2021. The recommendations in this addendum are supplementary to the referenced memorandum. If you have questions or if we can be of further assistance, please call.

Sincerely,

HART CROWSER, A DIVISION OF HALEY & ALDRICH



MATTHEW W. VEENSTRA, PE
Associate, Geotechnical Engineer

DAVID G. WINTER, PE
General Manager

\\haleyaldrich.com\share\sea_projects\Notebooks\1956701_The_Net_Rubble_Mound_Berm_Support\Deliverables\Letters\Addendum #1 Letter\Geo Addendum 01_The Net_COR #1_04-28-2021.docx

HARTCROWSER

A division of Haley & Aldrich

April 28, 2021

Mark Presleigh
Lease Crutcher Lewis
2200 Western Avenue, Suite 500
Seattle, WA 98121

Re: Plan Review and Minimum Risk Statement
The Net - Rubble Berm Support of Basement Walls - 823 Building
SDCI Project Number: 6698208-DM-004
Seattle, Washington
19567-01

Mark:

This letter provides Hart Crowser's geotechnical-related review of the structural submittal for temporary support of existing basement walls during demolition.

Plan Review

We have reviewed the structural submittal by KPFF dated March 10, 2021 for rubble support of existing basement walls. In our opinion, the design and plans adequately conform to the recommendations provided in our geotechnical engineering design memorandum dated March 12, 2021.

Minimum Risk Statement

Regardless of the precautions taken and the level of engineering applied to the development, it is not possible to state that risks associated with the development do not exist. However, it is our opinion that the risk of damage to the proposed development or to the adjacent properties from soil stability will be minimal, provided that construction is carried out in accordance with the project plans, specifications, and our recommendations. By minimal, we mean that the risk is at a level generally considered acceptable in the local industry.

3131 Elliott Avenue, Suite 600
Seattle, Washington 98121
Tel 206.324.9530

We trust this letter meets your project needs. If you have questions or if we can be of further assistance, please call.

Sincerely,

HART CROWSER, A DIVISION OF HALEY & ALDRICH

MATTHEW W. VEENSTRA, PE
Associate, Geotechnical Engineer

DAVID G. WINTER, PE
General Manager

\\haleyaldrich.com\share\sea_projects\Notebooks\1956701_The_Net_Rubble_Mound_Berm_Support\Deliverables\Letters\Plan Review and Min Risk\Net Rubble Berm Plan Review and Min Risk Statement - Hart Crowser_04-28-2021.docx

☐ **Revised Schedule** ☐ **Addition to Previous Schedule** ☐

SDCI Geotechnical Inspections Schedule

Project Number 6698208-DM-004
Project Address 801 3RD AVE
SEATTLE, WA 98104
Architect
Engineer

Date 4/8/2021 6:15 PM
SDCI Plan Examiner Pao Huang
Architect Phone
Engineer Phone

Prior to issuance of a building permit, the owner or owner's agent shall appoint an inspection agency and shall sign and submit this form to the building official.

Property Owner or Owner's Agent Signature
I hereby certify that the geotechnical engineer named below has been engaged to perform the special inspections outlined below as required by the Seattle Building Code. It is the responsibility of the owner or the owner's designee to notify the inspection agency in a timely manner when the inspections listed below are required.

Signature	Title	Date	Phone
[signature]	Authorized Rep	04/15/2021	206-262-2883

Geotechnical Engineering Firm Name	Geotechnical Engineering Firm Phone
HART CROWSER INC	206-324-9530

Required Special Inspections

	Inspection Type	Description
1.	Observe And Monitor Excavation	
2.	Other Geotechnical	Monitor deflection of basement wall

Call (206) 684-8860 to schedule a pre-construction conference before the start of construction

1601 Fifth Avenue, Suite 1600 Seattle, WA 98101 206.622.5822 kpff.com

4/15/2021

Ben Enfield
City of Seattle
Department of Construction and Inspections

Subject: 801 3rd Ave (3rd and Columbia)
Permit No. 6698208-DM-004
Correction Notice #1

Dear Ben:

We have reviewed the Structural Engineering Correction Notice #1 dated April 12, 2021. Please refer to supplemental calculations dated 4/15/2021 for additional information referenced in our responses. Please see our responses to comments below.

PERMIT COMMENT RESPONSES

1. *Comment: The temporary case assumes support against the Marion St. wall. Clarify the load path for this force.*

   Response: The diaphragm at either end is supported by the concrete walls that carry the loads down to the soil, or to the slab-on-grade which all work to resist the loads from the diaphragm. Additional calculations are provided in response to this comment that demonstrate that this load path has adequate capacity to resist the forces from the soil.

2. *Comment: And on the other side of the opening, a support is assumed. Clarify what this support is.*

   Response: Please see response to comment above.

If there are any further comments or questions, please feel free to call me at (206) 622-5822.

Sincerely,

Scott Neuman, SE
Associate

SLN

kpff Consulting Engineers
1601 5th Avenue, Suite 1600
Seattle, WA 98101
(206) 622-5822 Fax (206) 622-8130

project 823 3RD AVE DEMOLITION	by SLN	sheet no.
location	date 4-13-21	
client		job no.

Response to SDCI comments dated 4-12-2021

Review comments ask to clarify what provides support for diaphragm reactions for temporary condition shown on calculation page 7 of 17 of original submittal.

Reaction per previous calculations is
$V_u = 158K$

Resistance modes for diaphragm reaction

Friction due to self wt. of wall

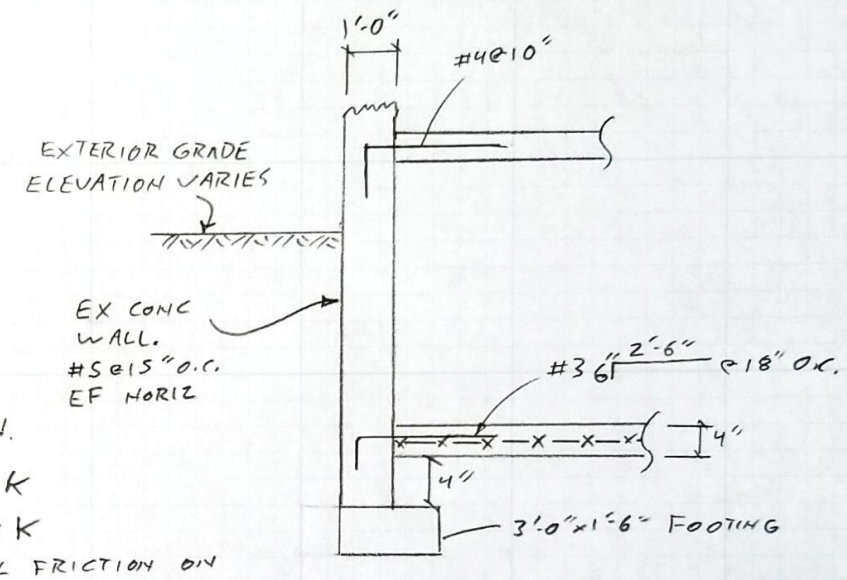
Wall is ~ 8 Ft tall in demolished condition on average along Marion St.

wt. wall = 8Ft · 1Ft · 108Ft · 0.15kcf = 130K

wt. footing = 1.5Ft · 3Ft · 108Ft · 0.15kcf = 73K

total = 203K

Friction @ Base = (0.9 · 203k) · 0.4 = 73K (SOIL FRICTION ON UNFORMED SURFACE)

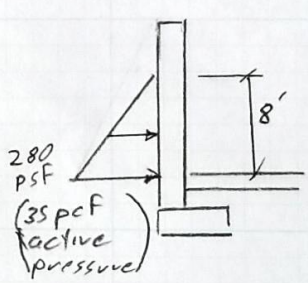


Per original detail 8/S3
SECTION AT MARION ST.

Friction due to lateral soil pressure on side of wall

Total load on side of wall =
(280psf · 8ft · ½) · 108 ft = 121 K

Friction on side of wall = (0.9 · 121K) · 0.3 = 33K (SOIL FRICTION ON FORMED SURFACE)



Friction due to weight of slab-on-grade

½ of slab-on-grade helps to resist load from one side of bldg

wt. sog. = $\frac{(108Ft \cdot 117Ft)}{2} \cdot \frac{4in}{12in} \cdot 0.15kcf = 316\ K$

Friction at bottom of S.O.G. = (0.9 · 316k) · 0.4 = 114K

Total = 73K + 33K + 114K = 220k (OK)

There are additional mechanisms for resisting forces from diaphragm including slab-on-grade bearing on existing conc columns & footings, and S.O.G. bearing on stem wall & passive resistance in the alley, but these mechanisms don't need to be quantified because the mechanisms above are demonstrated to have adequate resistance. Strength of existing structure is adequate to transfer loads by inspection.

kpff Consulting Engineers
1601 5th Avenue, Suite 1600
Seattle, WA 98101
(206) 622-5822 Fax (206) 622-8130

project 823 3rd AVE DEMOLITION | by SLN | sheet no.
location | date 4-13-21
client | job no.

Response to SDCI Question dated 4-12-21

What Provides resistance to diaphragm at boundary between 823 3rd Ave building and 801 3rd ave building in temporary condition.

Reaction per previous calculations
$= V_u = 158\,K$

Resistance modes for diaphragm reaction

Friction due to self weight of wall.

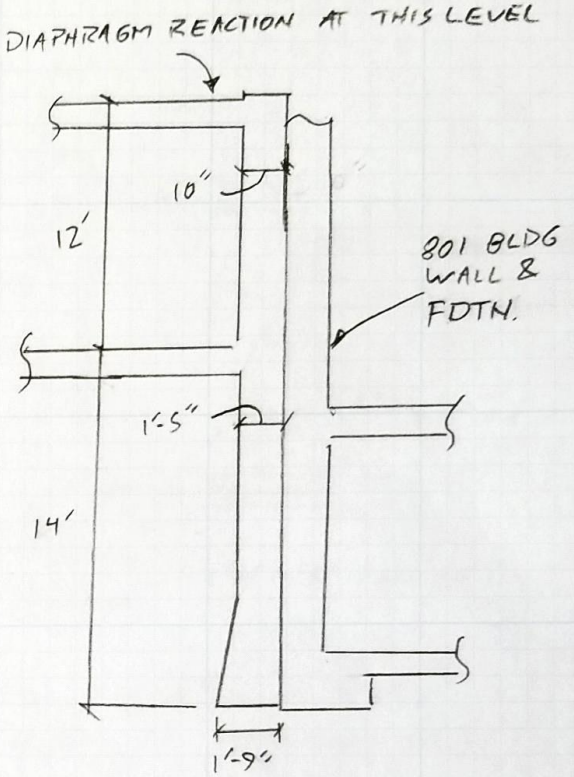
Weight of upper wall $= 12 \cdot \frac{10}{12} \cdot 108\,Ft \cdot 0.15 = 162\,k$

weight of lower wall $= 14 \cdot \frac{17}{12} \cdot 108\,Ft \cdot 0.15 = 321\,k$

Total $= 483\,K$

Friction $= (0.9 \cdot 483k) \cdot 0.4 = 174K$ (ok)

additional mechanisms for resisting forces from diaphragm exist but do not need to be quantified because Friction on the base of the existing basemat wall is adequate by itself.



Per original details 1&2/S2 section at 823-801 Boundary

1601 Fifth Avenue, Suite 1600 Seattle, WA 98101 206.622.5822 kpff.com

4/26/2021

Ray Gu, PE, SE
City of Seattle
Department of Transportation

Subject: 801 3rd Ave (3rd and Columbia)
Permit No. 6698208-DM-004
SDOT Correction Notice #1

Dear Ray:

We have reviewed the Structural Engineering comments that you sent via e-mail dated April 23, 2021. Please see our responses to comments below.

PERMIT COMMENT RESPONSES

2. *Comment: Indicate the depth of court yard deck with reference to 3rd Ave sidewalk and double check the soil lateral pressure profile in calcs.*

   Response: Review of the as-built drawings for the 823 building and the site plan for "The Net" indicate that the correct height of 12'-6" for the retained soil along 3rd Ave was used for the design of the rubble walls. See attached page of additional calculations verifying this height.

3. *Comment: On page 2 of plan set, modify the note for tallow deck to: Floor slabs at court and on-grade levels and their column can be demolished only after rubble is in place at both the north and east walls.*

   Response: Please see updated plan sheet attached to this response.

If there are any further comments or questions, please feel free to call me at (206) 388-8228.

Sincerely,

Scott Neuman, SE
Associate

SLN

kpff
1601 5th Avenue, Suite 1600
Seattle, WA 98101 [206] 622-5822

project 3RD & Columbia	by SLN	sheet no.
location	date 4-26-21	
client		job no.
Response to SDOT Comments		

2. Indicate depth of court yard deck with reference to 3rd Ave sidewalk and double check the soil lateral pressure profile in calcs.

L1

Top of Finished Floor = EL 90'-0" per detail 2/S4
Along 3rd Ave side of bldg, Top of structure = 89'-5"

P1

Top of finished slab-on-grade = EL 77'-0" per plan on S2

Total height of basement wall @ 823 bldg at 3rd Ave
= (89'-5") - (77'-0") = 12'-5"

calculations were performed for a height of 12'-6" which is acceptable.

Hdc: AT NE corner of site, there are steps up into the bldg before steps down to the Level 1 slab. Drawing sheet G010 From drawings from "The Net" (2020) show that the elevation For 3rd Ave drops about 3.5 ft from a high at the NE corner of the building to a low at the SE corner. This is consistant with the original 823 building construction drawings which show a lower entry height sloped up to meet the slab at the SE corner. Conclusion is that the maximum retained soil height is 12'-6" which has been accounted for in the design.

FLOOR SLABS AT COURT AND ON-GRADE LEVELS AND THEIR COLUMNS CAN BE CAN BE DEMOLISHED ONLY AFTER RUBBLE IS IN PLACE AT BOTH THE NORTH AND EAST WALLS.

FLOOR SLAB AREA AT THE COURT LEVEL THAT CAN BE DEMOLISHED ONCE RUBBLE IS IN PLACE AGAINST THE NORTH WALL BUT BEFORE RUBBLE IS IN PLACE AT THE EAST WALL.

FLOOR SLAB AREA AT THE COURT LEVEL THAT CAN BE DEMOLISHED WITH NO RUBBLE IN PLACE AGAINST THE NORTH OR EAST WALLS.

823 BUILDING - START OF DEMOLITION AT COURT LEVEL
SLN - KPFF
4/26/2021
RESPONSE TO SDOT COMMENTS

MARION ST

ALLEY

3RD AVE

823 BUILDING

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

COURT LEVEL FRAMING PLAN
1/8"=1'-0"

GREGORY L. VARNEY
STATE OF WASHINGTON
25842
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

Greg Varney, S.E.

Digitally signed by Greg Varney, S.E.
Reason: I am approving this document
Contact Info: greg.varney@kpff.com
Date: 2021.04.26 11:49:34-07'00'